

The Logic of Confusion

Remarks on Joseph Camp's *Confusion: A Study in the Theory of Knowledge*

John MacFarlane (University of California, Berkeley)

Because I am color blind, I routinely wear mismatched socks and clashing colors (or so I am told). Those who know about my visual deficiencies do not hold me responsible for these fashion mistakes. They may tell me where I've gone wrong, but they do not censure me for sloppiness or lack of a fashion sense, as they might if I had normal color vision. It is tempting to tell a similar story about the charity due those who have "taken two things to be one" and confused them in their thought and talk. When their confusion leads them to make inferential mistakes that would ordinarily be grounds for harsh criticism (like equivocation or misjudging the weight of the evidence), we go easy on them. We acknowledge that the arguments they have given are bad, but we *excuse* them for having given them.

If Joe Camp is right, however, this analogy is profoundly misleading: taking someone to have confused two things is *not at all* like taking someone to be color-blind. To say that Fred has confused Ant A and Ant B is not to describe Fred's mental state, but to take a normative position on how Fred's reasoning ought to be appraised. And the position is not that Fred should be *excused* for making certain inferential mistakes (for example, equivocating), but rather that he should be understood paternalistically as *unable to make* these mistakes in the first place. What this requires, according to Camp, is that we refrain

from assigning truth values to Fred's confused claims and evaluate his inferences for validity using a four-valued epistemic semantics.¹ The details are fascinating, and we will get to them shortly. But first, a little reflection on how the game begins.

1. Inferential charity

We can all agree, I take it, that a certain kind of charitable attitude is appropriate to those who are ontologically confused. When we learn that Fred is confusing the two ants, this makes a difference to our assessment of him as a reasoner. But Camp goes beyond this uncontroversial starting point in two respects. First, he seems to take this charitable attitude to be *constitutive* of attributing confusion, and not just a *consequence* of attributing confusion:

When we (in the story) say of Fred that he 'thinks Ant A is Ant B,' we are using the verb 'thinks' semantically, not psychologically. We are taking the position that Fred's reasoning concerning his ant colony should be appraised for argument-strength by means of a special charitable criterion. (40)

¹ It turns out that the logic of confusion is the relevance logic E_{fde} . Camp's argument is not at all the usual kind of argument for a relevance logic, though see David Lewis, "Logic for Equivocators," *Nous* 16 (1982), 431-441.

On this view, attributing confusion is more like giving someone a handicapped parking tag than describing the person's disability. In support of this view, Camp argues convincingly that attributions of confusion cannot be reduced to attributions of propositional attitudes. Confusion, he shows, is not a matter of believing falsehoods. But it does not follow from this that attributions of confusion are not "used to say anything 'mental' at all," or that they are not straightforwardly descriptive of "*how* [a person's] mind works" (37). Being dyslexic is not a matter of having certain propositional attitudes, either; it hardly follows that attributing dyslexia to someone is not saying something about how her mind works, or that it is essentially a matter of taking up a normative position.

Second, Camp thinks that when we take someone to be confused, we should adopt a charitable attitude not only towards *her* as a reasoner, but towards the *arguments* she uses. That is, we should apply a standard for argument validity that makes her arguments come out as valid (or nondeductively strong) to the greatest extent possible (38). It is easy to confuse these two forms of inferential charity, because the word "inference" is ambiguous between (1) an *act* of drawing a conclusion from premises, which is something a reasoner *does*, and (2) an argument in the logician's sense—a set of premises and a conclusion. Unless one is careful to distinguish between these senses, it will seem as if taking someone's inferences(1) to be good (reasonable and rational) is just the same thing as taking her inferences(2) to be good (valid or nondeductively strong). Granted, there is some connection between being a good reasoner and using valid arguments. But one can certainly reason badly while using only valid deductive arguments. Graham

Priest gives the example of a flat-earther who combines implausible and irrelevant premises in perfect syllogistic form.² Or consider the reasoner who infers from “My theory of matter is correct” and “If my theory of matter is correct, then life on earth is impossible” to “Life on earth is impossible,” impulsively using *modus ponens* without stopping to consider whether *modus tollens* would be more appropriate.³ Conversely, using invalid arguments doesn’t necessarily make one a bad reasoner. Suppose you are relying on an inference form you have every reason to believe is valid (education, intuition, experience), although in fact there are a few obscure counterexamples. Surely you do not merit criticism *qua* reasoner in the same way that someone who “ought to have known better” would. Indeed, an excessively cautious policy of avoiding patterns of inference that are even slightly risky (because one’s assurance of their reliability depends on fallible sources like testimony) may make one a *terrible* reasoner—at least if we judge success in reasoning by results.

Given the real distinction between criticizing a reasoner and taking her arguments to be invalid, Camp needs to explain why attributing confusion requires refraining from the latter as well as from the former. Why shouldn’t we recognize poor Fred’s arguments as invalid but decline to censure him for making them? If this is all that is required for inferential charity, then it has none of the radical semantic upshots Camp describes.

² “What Is So Bad About Contradictions?,” *Journal of Philosophy* 95 (1998), 410-426, at 420.

³ Cf. Gilbert Harman, “Logic and Reasoning,” *Synthese* 60 (1984), 107-127.

Camp is quick to dismiss this less radical strategy as akin to “arguing that some reasoner is thoroughly rational because he is too stupid to notice fallacies” (54). He points out that we would regard someone whose grip on the meanings of “flush” is so feeble that he combines premises from a poker manual and a home medical companion as an incompetent reasoner. But surely that is not *merely* because he has used an invalid argument, but because he is using language recklessly, in parrot-like fashion, without knowing what it means.

Let me be clear: I *agree* with Camp that we ought to count Fred’s arguments as valid “exactly when (or almost exactly when) they are of a form we would regard as valid in the absence of any confusion...” (40). In particular, I agree that we should not take Fred to be equivocating in his use of “Charley.” But the reasons, I think, have little to do with inferential charity, and everything to do with certain *psychological* facts about Fred: in particular, the fact that he *takes* all of his uses of “Charley” to be tokens of a single name, and hence as coreferential *de jure*. His problem is not sloppiness or inattention, but a breakdown in cognitive organization. To use a popular metaphor, he has one “file folder” receiving input from two different sources. The charge of equivocation would only be appropriate if there were two file folders, with lots of sloppy misfiling. I suspect that Camp would not endorse this argument for taking Fred’s “Charley” inferences to be valid, because it depends crucially on taking confusion to be a psychological state rather than a normative status. But in that case, he still owes us a justification for his jump from charity to the *reasoner* to charity to her *arguments*.

He also owes us a new argument for his claim that confused thoughts and claims should not be assigned truth values. The argument he offers goes as follows (in broad outline):⁴

1. The usual ways of assigning truth values to confused discourse (ambiguity, supervaluation) will reveal the arguments as invalid or nondeductively weak.
2. But the inferential charity due to confused reasoners requires that we construe these arguments as valid or nondeductively strong.
3. Therefore, we should not assign truth values to confused thoughts or claims (not even “Charley is an ant”).

The second premise here is precisely the assumption I have flagged as insufficiently supported. Given the central role this assumption plays in Camp’s argument, the two-page defense it receives (53-4) is not enough.

2. Truth and validity

Despite being dissatisfied with Camp’s arguments in the first half of the book, I am inclined to agree both that Fred’s confusion of the two big ants renders his thought and

⁴ For the details, which are interesting, see Camp’s chapter 7. In chapters 8-10 he rejects the usual Strawsonian arguments for this conclusion.

talk about “Charley” truth-valueless, and that it does not render his arguments invalid. So I find the question Camp pursues in the second half of his book worth asking: How can we explicate a notion of validity that (a) is appropriate for the assessment of arguments whose premises and conclusions are truth-valueless due to confusion, and (b) ratifies as valid just “those forms of argument we think of as characterizing completely logical thought in the normal case, in ourselves” (156)? Of course, we can achieve (b) by sticking with the classical explication of validity in terms of truth preservation. The project is only interesting if desideratum (a) precludes us from doing this, as Camp thinks it does. But why does it?

Here is a quick and dirty argument. In classical semantics, “Charley is an ant or Charley is not an ant” comes out logically true (true on all interpretations). If the sentence is true on all interpretations, then surely it must be true on its actual interpretation, and so true *simpliciter*—violating desideratum (a). But this is *too* quick and dirty. Logical truth, in classical semantics, is truth on all *classical* interpretations. But in this case its actual interpretation is presumably *not* classical: “Charley” does not have a unique referent. So in this case we cannot infer from (classical) logical truth to truth *simpliciter*.

Camp’s own reason for rejecting classical validity as inappropriate for the assessment of confused inferences is subtler. He argues that an appropriate explication of validity must be *authoritative* for the confused reasoner: that is, “[t]he person must care, in principle, whether an argument is valid” in the sense explicated (79). Won’t Fred, who does not *know* he is confused, care whether his inferences are truth-preserving on all classical

interpretations? Yes, but only because of his ignorance. Suppose we describe the validity criterion to him differently, as truth preservation on a set of interpretations that is not guaranteed to include the actual (intended) interpretation. Why should he care whether his inferences satisfy this condition? And what about a reasoner who *intentionally* conflates two things (as Camp thinks Locke conflates mental acts and mental objects)?⁵ If our explication of validity is to apply equally to such cases of “self-induced confusion,” its authoritativeness must not depend on the reasoners’ ignorance of their own confusion.

Camp appeals to similar considerations to rule out a supervenient explication of validity. He claims that Fred, who has no way to pick out Ants A and B individually in thought, would have no reason to care about a validity criterion formulated in terms of “an ontology he cannot guess is the one intended,” one containing distinct ants A and B (81). I don’t find this at all clear myself. Surely a confused reasoner has reason to care about the domain of real objects, whatever it may be, even if contains objects she does not distinguish in her own thought. But the supervenientist does owe us an answer to Camp’s question: why should a confused reasoner care whether her arguments meet the supervenientist’s validity criterion?

⁵ Chapters 17-19.

3. A four-valued logic

What explication of validity does Camp think *would* be authoritative for confused reasoners? Giving up on truth preservation, he proposes a semantics with four *epistemic* “opinion values.” Posit two or more “authorities”—Camp calls his Sam and Sal—each of whom interprets the confused term (or terms) in a different “unconfused” way. Ask the authorities to give their considered judgements about *atomic* sentences of the language, thus interpreted, after making a properly thorough investigation. Then amalgamate their responses as follows:

- if at least one authority says Yes and no authority says No, assign the value **Y**
- if at least one authority says No and no authority says Yes, assign the value **N**
- if none of the authorities answer Yes or No, assign the value **?**
- if some authorities say Yes and others No, assign the value **Y&N**.

Finally, define validity as the preservation of **Y** and non-**N** (so that a valid argument can take you from **Y&N** to **Y**, but not from **?** to **Y&N**). This explication of validity is authoritative for Fred, Camp argues, because “Fred should want to reason in ways that preserve the good advice these experts toss his way,” even though he realizes that their sophisticated worldviews may be quite different from his own (147).

So far, so good. But our semantics is not finished until we say how to assign these opinion-values to *compound* sentences: “It is up to us to see that we don’t fritter away

the ‘rationality’ of Sam and Sal’s opinions when we extend the range of semantic values to logically compound sentences” (148). Here Camp argues for Belnap’s four-valued matrices, which yield the relevance logic E_{rde} .⁶ For the most part, these matrices make good sense on Camp’s interpretation of the values. But there is at least one troubling anomaly. Suppose Sam says Yes to sentence A and No to sentence B, while Sal says No to A and Yes to B. Then each would say No to A&B if asked (though remember that they are only asked directly about atomic sentences). Intuitively, then, it seems that A&B should get the value **N** if we are to preserve the rationality of our experts’ opinions. However, the Belnap semantics assigns A&B the value **Y&N** (152).

The obvious conclusion to draw from the anomaly is that conjunction is not value-functional in Camp’s four values. But instead of adding values or exploring a non-value-functional semantics, Camp simply accepts the anomaly. Here I think he underestimates the costs. It is only because the “opinion values” of compound sentences can be taken to be indicators of profitability and costliness, Camp thinks, that the proposed validity criterion is “authoritative” for the confused reasoner. But if A&B can receive the value **Y&N** despite the fact that both authorities would say “No,” then the connection between the values and profitability and costliness is broken, and the validity criterion loses its authoritativeness.

⁶ Alan Ross Anderson, Nuel D. Belnap, Jr., and J. Michael Dunn, *Entailment: The Logic of Relevance and Necessity*, vol. 2 (Princeton: Princeton University Press), sec. 81.

This should come as a disappointment to those who have followed Camp this far. We wanted an explication of validity that ratified as valid just those inferences that would be valid in the mouth of a non-confused reasoner, while being authoritative even for a confused reasoner. But Camp's explication of validity doesn't satisfy either of these desiderata perfectly. We get to be charitable to the confused reasoner to an extent, but woe unto her if she happens to use disjunctive syllogism, which is classically valid, but invalid in E_{fde} ! And if we try to explain *why* disjunctive syllogism is a bad inference form for confused reasoners to use, we'll find that we can't, because there is too much slack between the four-valued explication of validity and the things confused reasoners have reason to care about (preservation of the "good advice" of experts).

4. Perspectival truth?

Thus it seems worth exploring alternatives to the four-valued semantics. The simplest fix for the anomaly would be to distinguish the values $Y\&N$ and $N\&Y$, keeping separate track of the two authorities' informed opinions. The conjunction of $Y\&N$ and $N\&Y$ could then have a different value than the conjunction of $Y\&N$ and $Y\&N$, and our anomaly would be removed. Camp rejects this proposal on the grounds that the semantic values must not encode any differential information about the two objects being confused (152). His scruples here strike me as unmotivated. Even though Fred is unaware that his authorities are examining different ants, he might think it wise on independent grounds to keep separate track of their opinions. Still, the resulting semantics would be ugly, especially in cases where we need more than two authorities. With four authorities, for

example, we would have to distinguish between $Y \& N \& N \& N$ and $N \& Y \& ? \& N$. Making connections between these values and profitability and costliness would not be easy.

Is there a better way? Early in his discussion of the logic of confusion, Camp says:

When one first thinks about ontological confusion, it is natural and intuitively plausible to talk in terms of perspectival truth. One wants to say: “what the confused person thinks may be true from one perspective but false from another perspective; or it may be true from both perspectives, or false from both.”

Perspectival truth must replace truth *simpliciter* when one evaluates a confused belief. (125)

Camp quickly drops the talk of perspectival truth: his four epistemic values, as he notes, aren't *truth* values at all. But perhaps some kind of perspectival truth is just what is needed here. Think of Camp's “authorities” as occupying different perspectives: from one perspective, Fred is referring to Ant A, from another, he is referring to Ant B. Neither perspective captures the full story about Fred's confused thinking, but that is because there is no way to capture the full story and still think of Fred's thoughts as having truth values. Given that there are no “absolute” truth values for confused claims, only relativized, perspectival truth values, it seems natural to define validity in terms of these, as truth preservation in every perspective.

It seems to me that such an approach might meet Camp's desiderata even better than his

own multivalued semantics:

1. Because validity is defined in terms of preservation of truth-at-a-perspective, and there is no uniquely appropriate perspective for assessing a confused reasoner, the validity criterion is compatible with Camp's idea that confused thoughts and claims are not true or false *simpliciter*.
2. The semantic clauses for the logical connectives can be simple and straightforward, no matter how many perspectives are in play. For example, a conjunction is true at a perspective just in case both conjuncts are true at that perspective. There are no anomalies.
3. We achieve complete inferential charity, without embarrassing exceptions like disjunctive syllogism. Since every perspective corresponds to a classical interpretation, all classically valid inferences will be valid on the perspectival-truth semantics as well.

The crucial question is whether the perspectival-truth explication of validity is *authoritative* for the confused reasoner. Does the confused reasoner have reason to *care* whether her inferences are valid in this sense? That depends, I think, on what it *means* to say that a claim is "true at a perspective," and in virtue of what a person "occupies" or "takes up" a particular perspective on a confused reasoner's thought and talk. Unless these questions can be answered, the proposed semantics is of merely technical interest and cannot be authoritative. But I am less pessimistic than most about the prospects for answering them. In recent work, I have suggested giving significance to perspectival

truth by embedding it in a larger theory of language, specifically in a normative account of what it is to make an assertion.⁷ I would like to propose, very tentatively, that this kind of framework might be a better home for a “semantics of confusion” than the multivalued, epistemic semantics Camp advocates.⁸

⁷ See my “Making Sense of Relative Truth,” *Proceedings of the Aristotelian Society* 105 (2005), 321-39.

⁸ I am grateful to Lionel Shapiro for helpful comments.